

Applicants respectfully submit that the restriction requirement is improper for at least the following reasons. The inventions of the groups are not separately patentable and the Examiner is not seriously burdened. A search for one invention will suffice for the other. Applicants respectfully request reconsideration of the restriction requirement and rejoinder of claims as provided below.

The elected claim (claim 46) is directed to cDNAs encoding an amino acid sequence as provided in SEQ ID NO. 66. SEQ ID NO. 66 is the amino acid sequence of OCIF-C23S, an OCIF mutant in which one of five cys residues (position 379) present in OCIF (SEQ ID NO. 4) is replaced with a ser residue (page 52 of the application as originally-filed). Like elected claim 46, claims 34, 37, 40 and 43 are also directed to cDNAs encoding an amino acid sequence of an OCIF in which one of five cysteine residues is replaced with a ser residue.

The claims in Groups 30 through 56 are directed to cDNAs encoding an amino acid sequence of an OCIF mutant or variant, in which one or more cysteine residues present in OCIF (SEQ ID NO. 4) is replaced with serine, or, one or more amino acid(s) present in OCIF is deleted (See Table below).

TABLE OF VARIANTS / MUTANTS OF OCIF

<u>OCIF Mutant</u>	<u>amino acid replaced/ substituted amino acid</u>	<u>SEQ ID NO.</u>	<u>Claim</u>	<u>Group</u>
OCIF-C19S	174 Cys to Ser	62 <sup>aa</sup>	34	30
OCIF-C20S	181 Cys to Ser	63 <sup>aa</sup>	37	31
OCIF-C21S	256 Cys to Ser	64 <sup>aa</sup>	40	32
OCIF-C22S	289 Cys to Ser	65 <sup>aa</sup>	43	33
OCIF-C23S	379 Cys to Ser	66 <sup>aa</sup>	46	34

<u>OCIF Mutant</u>	<u>amino acid deletions</u>	<u>SEQ ID NO.</u>	<u>Claim</u>	<u>Group</u>
OCIF-DCR1	Thr 2 to Ala 42	67	49	35
OCIF-DCR2	Pro 43 to Cys 84	68	52	36
OCIF-DCR3	Glu 85 to Lys 122	69	55	37
OCIF-DCR4	Arg 123 to Cys 164	70	58	38
OCIF-DDD1	Asp 177 to Gln 251	71	61	39
OCIF-DDD2	Ile 252 to His 326	72	64	40

<u>OCIF Mutant</u>	<u>amino acid deletions</u>	<u>SEQ ID</u> <u>NO.</u>	<u>Claim</u>	<u>Group</u>
OCIF-CL	Cys 379 to Leu 380	73	67	41
OCIF-CC	Ser 331 to Leu 380	74	70	42
OCIF-CDD2	Asp 252to Leu 380	75	73	43
OCIF-CDD1	Asp 177 to Leu 380	76	76	44
OCIF-CCR4	Arg 123to Leu 380	77	79	45
OCIF-CCR3	Cys 86 to Leu 380	78	82	46
OCIF-CBst	Gln 371 to Leu 380	79	85	47
	replaced with 2 residues of Leu-Val			
OCIF-CSph	Cys 298 to Leu 380 replaced with 3 residues of Ser-Leu- Asp	80	88	48

<u>OCIF Mutant</u>	<u>amino acid substitution/deleted</u>	<u>SEQ ID</u> <u>NO.</u>	<u>Claim</u>	<u>Group</u>
OCIF-CBsp	Asn 167 to Leu 380 deleted	81	91	49
OCIF-CPst	Asp 62 to Leu 380 replaced with 2 residues of Leu-Val	82	94	50

<u>OCIF/OCIF Variant</u>	<u>SEQ ID</u> <u>NO.</u>	<u>Claim</u>	<u>Group</u>
OCIF protein without signal peptide	4	95	51
OCIF 2	9	99	52
OCIF 3	11	101	53
OCIF 4	13	103	54
OCIF 5	15	105	55
Genomic DNA	4	106	56

The Applicant provisionally elects claim 46 in Group XXXIV, however, the requirement for election is traversed and rejoinder of claims 34, 37, 40, 43, 46, 49, 52, 55, 58, 61, 64, 67, 70, 73, 76, 79, 82, 85, 88, 91, 94, 95, 99, 101, 103, 105, and 106 is hereby requested. At minimum, Applicants request rejoinder of claims 34, 37, 40, 43 and 46.

Claims 34, 37, 40, and 43, like claim 46, are directed to cDNAs encoding amino acid sequences in which a cysteine in OCIF is substituted with a serine (page 52 of the application as originally-filed). Each of these polynucleotides encoding OCIF mutants are known in the art as equivalents and all have identical classification in class 536, subclass 23.5 (page 2, line 10-13 of the outstanding Office Action), i.e., none have acquired separate status in the art.

Claims 49, 52, 55, 58, 61, 64, 67, 70, 73, 76, 79, and 82 are directed to cDNAs encoding amino acid sequences in which more than one amino acid in OCIF is deleted (pages 59 and 67 of the application as originally-filed). Each of these polynucleotides encoding OCIF mutants are known in the art as equivalents and all are classified identically to the OCIF mutants recited in claims 34, 37, 40, 43, and 46, discussed above.

Claims 85, 88, 91, and 94 are directed to cDNAs encoding amino acid sequences in which one or more amino acids in OCIF are deleted and /or substituted (page 68 of the application as originally-filed). Each of these polynucleotides encoding OCIF mutants are known in the art as equivalents and all are classified identically to the OCIF mutants recited in claims 34, 37, 40, 43, 46, 49, 52, 55, 58, 61, 64, 67, 70, 73, 76, 79, and 82, discussed above.

Claims 95, 99, 101, 103, 105, and 106 are directed to cDNAs encoding OCIF, OCIF variants, or to genomic DNA encoding OCIF (pages 46-48 of the application as originally-filed). Each of these polynucleotides encoding OCIF or OCIF variants are known in the art as equivalents and all are classified identically to the OCIF mutants recited in claims 34, 37, 40, 43, 46, 49, 52, 55, 58, 61, 64, 67, 70, 73, 76, 79, and 82, discussed above.

For all of the above reasons, claims 34, 37, 40, 43, 49, 52, 55, 58, 61, 64, 67, 70, 73, 76, 79, 82, 85, 88, 91, 94, 95, 99, 101, 103, and 105 read on the elected species in claim 46. Each of the claimed embodiments differs only by an amino acid substitution/deletion, therefore none of the species in the claims are distinct. The difference in claimed species is at least obvious because each claimed embodiment has the same classification. None of the claimed species are distinct; a search for one species will suffice for the other. The Examiner is not seriously burdened if a restriction is not required. Therefore, the required election of one claim from the 78 claims introduced in this application is improper. Applicants respectfully request rejoinder of at least claims 34, 37, 40, 43, 46, 49, 52, 55, 58, 61, 64, 67, 70, 73, 76, 79, 82, 85, 88, 91, 94, 95, 99, 101, 103, 105, and 106 in Groups XXX to LVI.

Furthermore, for the reasons provided above, applicants respectfully request rejoinder of claims 32, 35, 38, 41, 44, 47, 50, 53, 56, 59, 62, 65, 68, 71, 74, 77, 80, 83, 86, 89, 92, 96, 97, 98, 100, 102, 104, and 107 in Groups I through XXIX each drawn to a cDNA comprising nucleotide sequences which are mutants or variants of the nucleotide sequence of OCIF. Each of these mutants or variants are known in the art as equivalents and have not acquired separate status in the art as shown by their identical classification (page 2, lines 1-7 of the outstanding Office Action).

Additionally, for all of the same reasons, applicants respectfully request rejoinder of claims 33, 36, 39, 42, 45, 48, 51, 54, 57, 60, 63, 66, 69, 72, 75, 78, 81, 84, 87, 90, and 93 in Groups LVII through LXXVII drawn to proteins that are OCIF variants or mutants. Each of these OCIF variants and mutants are known in the art as equivalents and have not acquired separate status in the art as shown by their identical classification (page 2, lines 16-17 bridging page 3, lines 1-3).

For the foregoing reasons, applicants submit that the restriction requirement is improper and should be withdrawn. Applicants respectfully request rejoinder of claims in Group I to Group XXIX; Group XXX to Group LVI; Group LVII to Group LXXVII; and Group LXXVIII.

#### **FORMAL MATTERS**

In the Office Action, a substitute specification excluding claims was requested pursuant to 37 C.F.R. §1.25(a). Applicants respectfully request that the request for a substitute specification excluding claims be held in abeyance until allowable subject matter is identified.


#### **CONCLUSION**

The examiner is urged to call the undersigned at (617) 248-7044. On the basis of the above remarks, withdrawal of the restriction requirement and rejoinder of claims is respectfully requested.

Respectfully submitted,

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